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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,872	02/23/2004	Hiroshi Yoshida	248173US-2 CONT	7086
22850	7590	05/31/2006	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			AHN, SAM K	
			ART UNIT	PAPER NUMBER
			2611	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,872

Applicant(s)

YOSHIDA ET AL.

Examiner

Sam K. Ahn

Art Unit

2611

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-11, 16 and 17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 9-11 and 17 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☒ Certified copies of the priority documents have been received in Application No. 09/466,929.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lipe US 5,548,759.

Regarding claim 9, Lipe teaches a recording medium recording a program which makes a controller execute processing steps in order to control a radio communicating apparatus having the controller for controlling a radio communication function, wherein the program makes the controller execute steps of: compiling (Compiler, note col.13, lines 23-24 and col.11, line 46) an application program (note col.2, line 53); and linking (see Fig.5B when library file is needed from a floppy disk) the compiled application program and a library outside of the radio communicating apparatus (16 in Fig.1, thus the application program attempting to use the peripheral device, 30a, not finding the proper library for the peripheral device searches floppy in step 76 in Fig.5B) to produce an executable file (note col.11, line 45, wherein the

driver and library files are executable files) which can be executed on basic software (Operating system 40 in Fig.1).

Although Lipe does not explicitly teach wherein the executable file is executed on the radio communicating apparatus and the application program has a command to communicate a radio signal, Lipe suggests that the connection between the main system and peripheral device (30a in Fig.1) is communicating through a wireless communication means (11 in Fig.1 and note col.14, lines 1-2).

Therefore, one skilled in the art would recognize that in order for the main system to communicate with the wireless communication means, communication signal using a radio signal would be used for the purpose of effectively communicating with the peripheral device. In a case when the connection is a cable, different type of communication signal would be implemented. Thus, when the system communicates with the peripheral device through a wireless communication medium, one skilled in the art would recognize that the system is a radio communicating apparatus.

3. Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ryan et al. US 6,311,149 B1 (Ryan) in view of Lipe US 5,548,759.

Regarding claim 10, Ryan teaches a communication device (130 in Fig.3B, specifically 330) having an analog device (FPAAs, note col.10, lines 44-51) to perform analog signal processing (note col.9, lines 63-64) and a digital device (note col.9, lines 37-39 and col.10, lines 1-6, programmable transceivers

producing digital signal) to perform digital signal processing (note col.9, lines 63-64);

an information storing unit (several library elements 550 in Fig.5 stored in 310 in Fig.3A, and see 720 in Fig.7) configured to store function information representing a function (function to test UUT 150), which both of the analog device and the digital device can execute (note col.9, lines 63-64), and configured to store selection rule information representing selection rule (see 720 in Fig.7) to select the analog device or the digital device to execute the function (wherein the selection is dependent on the UUT and the protocol used by the UUT for testing, and the system automatically selects hardware architecture, note col.18, lines 31-37); and a controller (510 in Fig.5) configured to select the analog device or the digital device (note col.9, lines 63-64 and col.10, lines 30-32, thus selects device) based on the selection rule (user selection 710 in Fig.7 and events occurring, note col.18, lines 31-37) to execute the function (function to test UUT 150), which a communication command (by the user) in an application program (note col.18, line 22, program to test the UUT) refers to, and configured to produce a software (715 in Fig.7) by compiling (note col.18, line 66) the application program (graphical program by the user) so as to execute the function with either selected one of the analog device and the digital device (note col.9, lines 63-64), and configured to execute the software (to test the UUT).

Although Ryan suggests that the Reconfigurable front end is programmable to support analog or digital device producing analog or digital signals, and further

explains that the user may support new telecommunication protocols, Ryan does not explicitly teach a radio communicating apparatus comprising: a communicating device configured to execute radio communication.

Lipe suggests that the connection between the main system and peripheral device (30a in Fig.1) is communicating through a wireless communication means (11 in Fig.1 and note col.14, lines 1-2).

Therefore, one skilled in the art would recognize that in order for the main system to communicate with the wireless communication means, communication signal using a radio signal would be used for the purpose of effectively communicating with the peripheral device. In a case when the connection is a cable, different type of communication signal would be implemented. Thus, when the system communicates with the peripheral device through a wireless communication medium, one skilled in the art would recognize that the system is a radio communicating apparatus.

And further, since both teaches a communication between an interface (130 in Fig.1 of Ryan and 32 in Fig.1 of Lipe) and a unit (150 in Fig.1 of Ryan and 30a in Fig.1 of Lipe) one skilled in the art would further recognize that the medium between the interface and the unit is the wireless communication means for the purpose of further increasing the selection by the user for testing the unit (note col.18, lines 31-37), hence establishes a radio communicating apparatus comprising: a communicating device configured to execute radio communication.

Regarding claim 11, Ryan further teaches a library (note col.17, lines 47-50) holding a table of communication functions (note col.9, lines 48-50) which can be realized with the analog device and the digital device (note col.9, lines 37-40).

4. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pietzold, III et al. USP 6,091,765 (Pietzold, cited previously) in view of Lipe US 5,548,759.

Regarding claim 17, Pietzold teaches a radio communicating apparatus (see Fig.5) comprising: a communicating device (12) configured to execute radio communication (wirelessly transmitting and receiving); ADC (129 in Fig.5) and DAC (130 in Fig.5) performing its functions which are further well-known to one skilled in the art, a digital signal processing device (24 in Fig.1) configured to perform a digital signal processing for an output of said ADC and for an input of said DAC, a controller (28) configured to perform a digital signal processing for first and second digital signal through the subsystem (12 in Fig.1 incorporating the ADC and DAC in Fig.5); and a controller configured to control at least one of the communicating device, the ADC, the DAC and the digital signal processing device.

However, Pietzold does not explicitly teach wherein said controlling is performed by compiling an application program, linking the compiled application program and a library outside of the radio communicating apparatus to produce an executable file, and executing the executable file on a basic software.

Lipe teaches a controller execute steps of: compiling (Compiler, note col.13, lines 23-24 and col.11, line 46) an application program (note col.2, line 53); and linking (see Fig.5B when library file is needed from a floppy disk) the compiled application program and a library outside of the radio communicating apparatus (16 in Fig.1, thus the application program attempting to use the peripheral device, 30a, not finding the proper library for the peripheral device searches floppy in step 76 in Fig.5B) to produce an executable file (note col.11, line 45, wherein the driver and library files are executable files) which can be executed on basic software (Operating system 40 in Fig.1).

Therefore, both Pietzold and Lipe teaches configuring its system (through 16 in Fig.1 and Lipe, and through 16 in Fig.1 of Pietzold), and it would have been obvious to one skilled in the art at the time of the invention to incorporate the teaching of Lipe in the system of Pietzold of configuring the system through a library located outside the system for the purpose of supporting various configuration which are presently available within the system. Hence, as taught by Lipe of compiling (Compiler, note col.13, lines 23-24 and col.11, line 46) an application program (note col.2, line 53); and linking (see Fig.5B when library file is needed from a floppy disk) the compiled application program and a library outside of the radio communicating apparatus (16 in Fig.1, thus the application program attempting to use the peripheral device, 30a, not finding the proper library for the peripheral device searches floppy in step 76 in Fig.5B) to produce an executable file (note col.11, line 45, wherein the driver and library files are

executable files) which can be executed on basic software (Operating system 40 in Fig.1), within the configuration input and configuration control system (16,18 of Pietzold), teaches all the limitations claimed.

Allowable Subject Matter

5. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
6. The following is a statement of reasons for the indication of allowable subject matter: present application discloses a radio communicating device capable of being configured to support analog or digital device. Prior art teaches or suggests the limitations claimed. However, prior art does not teach the combination of the limitation of the application program having plurality of communication commands independent of the analog hardware, and the library is dependent on the analog hardware wherein the application program runs on the basic software to make the application program independent of the analog hardware.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

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§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sam Ahn whose telephone number is (571) 272-3044. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mohammad Ghayour can be reached on (571) 272-3021. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Sam K. Ahn
5/17/06

Khanh Cong Tran

05/24/2006

Primary Examiner KHANH TRAN